

CUSTOMER NO.: 24498
Serial No.: 09/944,308
Final Office Action dated: June 20, 2005
Response dated: July 28, 2005

PATENT
PU010158

Remarks/Arguments

This application has been reviewed in light of the Office Action dated June 20, 2005. The Examiner's reconsideration of the rejection is respectfully requested in view of the preceding amendments and the following remarks.

Claims 1, 14, and 20 have been amended. No new matter has been added. Claims 1-23 are pending in the application.

By the Office Action, Claims 1-23 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,134,605 to Hudson et al. (hereinafter "Hudson").

It is respectfully asserted that Hudson does not teach or suggest, *inter alia*, "wherein the data is unrelated to functions performed by the modem", as now recited in Claims 1, 14, and 20.

Hudson is directed to a "redefinable signal processing system" (Hudson, Title). In particular, Hudson discloses that his system "allows a signal processing system to be configured to perform almost any signal processing function. Such a system includes a redefinable signal processing subsystem and a function-specific module. The system can be defined to perform a particular function by attaching a function-specific module to the redefinable subsystem and downloading function-defining code into the subsystem. The redefinable system includes at least a DSP, a local memory interface, a host interface, and a function module interface" (Hudson, Abstract).

Hudson discloses that the functionally redefinable signal processing subsystem 114 can include DSP circuitry required to implement communication systems (e.g., modems), audio systems, and/or multimedia systems (e.g., video, DVD) (Hudson, col. 5, lines 5-10).

Further to this end, Hudson discloses, with respect to the local memory interface mentioned above, "the subsystem 114 is coupled with memory pool 116, which can be loaded and/or reloaded with program code specific to a given signal processing function to enable the subsystem to perform a specified function. To redefine the function of the subsystem 114, new code defining a new function is loaded into memory pool 116" (Hudson, col. 5, lines 20-25). Moreover, Hudson further discloses, with respect to the function module interface

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mentioned above, that “[m]odule 120 can generally be thought of as interface circuitry to an external communication signal delivery media, which may include in various embodiments interface circuitry to a wide area network (in the case of a modem), to speakers (in the case of an audio application), and/or to a display screen (in the case of some multimedia applications). ... In other words, each module 120 contains function-specific circuitry so that when coupled to the subsystem 114 via interface 118, a complete function-specific signal processing system can be implemented” (Hudson, col. 5, lines 45-49).

Thus, “[t]he subsystem 114 can be configured to perform most any signal processing function with software” (Hudson, col. 5, lines 15-16).

However, since independent Claims 1, 14, and 20 each involve a modem, the redefinable signal processing subsystem 114 must be considered to be the same (i.e., a modem) to be applied to the claims in a rejection under 35 U.S.C. §102(b).

Accordingly, Hudson further discloses that “when using subsystem 114 to form an analog modem, the module 120 attached to subsystem 114 via interface 118 will contain the necessary circuitry to perform an analog modem function such as analog front end (AFE) circuitry 140, hybrid circuitry 142, and data access arrangement (DAA) circuitry 144” (Hudson, col. 5, lines 50-55). Moreover, “[t]o identify the function that is to be performed by signal processing subsystem 114, each module 120 contains a non-volatile memory unit 124, such as ROM or Flash memory, to store a function identifier” (Hudson, col. 6, lines 57-60).

Thus, in all cases, both the memory pool 116 and the module 120 contain code directly relating to the functions of the modem, in direct contrast to the limitations of Claims 1, 14, and 20. That is, for the subsystem 114 to function as a modem, both memory pool 116 and module 120 must contain modem-function-specific code for implementing modem functions.

It is not surprising that Hudson requires the memory pool 116 and the module 120 to contain modem-function-specific code for implementing modem functions, since “the subsystem 114 is a generic digital signal processing subsystem, containing little circuitry and/or program code to define a specific function it is to ultimately perform. Rather, the subsystem 114 is coupled with memory pool 116, which can be loaded and/or reloaded with

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program code specific to a given signal processing function to enable the subsystem to perform a specified function. To redefine the function of the subsystem 114, new code defining a new function is loaded into memory pool 116” (Hudson, col. 5, lines 17-25). Moreover, as noted above, “[t]o identify the function that is to be performed by signal processing subsystem 114, each module 120 contains a non-volatile memory unit 124, such as ROM or Flash memory, to store a function identifier” (Hudson, col. 6, lines 57-60).

Accordingly, Hudson does not teach or suggest all of the above-recited limitations of Claims 1, 14, and 20. “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Thus, Claims 1, 14, and 20 are patentably distinct and non-obvious over Hudson for at least the reasons set forth above.

Claims 2-13 depend from Claim 1 or a claim which itself is dependent from Claim 1 and, thus, includes all the limitations of Claim 1. Claims 15-19 depend from Claim 14 and, thus, include all the limitations of Claim 14. Claims 21-23 depend from Claim 20 and, thus, include all the limitations of Claim 20. Accordingly, Claims 2-13, 15-19, and 21-23 are patentable distinct and non-obvious over Hudson for at least the reasons set forth above with respect to Claims 1, 14, and 20, respectively.

In view of the foregoing amendments and remarks, it is respectfully submitted that all the claims now pending in the application are in condition for allowance. Early and favorable reconsideration of the case is respectfully requested.

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It is believed that no additional fees or charges are currently due. However, in the event that any additional fees or charges are required at this time in connection with the application, they may be charged to applicants' Deposit Account No.07-0832.

Respectfully submitted,

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